



Date: December 20, 2011

To: Thomas J. Bonfield, City Manager
Through: Wanda S. Page, Deputy City Manager
From: Kerry Goode, CIO/Director of Technology Solutions
Subject: Purchase of New Topographic Data

Executive Summary

Users of the enterprise Geographic Information System (GIS) depend on up-to-date data to deliver accurate analysis and mapping products. Most of the data included in our GIS is maintained by City or County staff. Some layers, however, are more difficult to maintain or change very slowly, or rarely, over time. These layers are usually purchased from third party vendors or their services are contracted to collect the data. The City/County topographic (contour) layer is one of those rarely updated layers. The current dataset was collected in two projects, one in 1994 that encompassed the City Limits, and the second in 1999 that covered the remainder of the County. In the 17 years since the City portion of the data was collected, there has been significant development that renders the data inaccurate in many areas. Additionally, in the time between the collection dates, accuracy standards changed, resulting in a seam between the 1994 and 1999 data which prevents accurate analysis across datasets.

In order to update this important dataset, the Technology Solutions Department has sought out a vendor to collect topographic data and to generate and deliver contours, Digital Elevation Models, and other data necessary to replace the existing layers. The proposed contract includes a complete county-wide replacement of the current topographic dataset. Data will be collected in February, 2012. The total cost of the contract is \$159,430.24. The funding in the amount of \$159,430.24 for this project is included in the Technology Solutions budget. This is a jointly funded project by the City and County of Durham and the County is paying half of the total cost of the contract.

Recommendation

The administration recommends that the City Council authorize the City Manager to execute a contract with Fugro EarthData Inc. to purchase updated topographic data in the amount of \$159,430.24 for a two-year period.

Background

The Technology Solutions Department and users of the enterprise GIS have identified a need to update the current topographic layers, captured in 1994 and 1999. The current dataset no longer provides a platform for accurate mapping and analysis. Both GIS users, and the Technology Solutions Department, see the benefits of updating this important dataset.

In November 2011, a Request for Qualifications was issued to begin the process of selecting an acceptable mapping vendor. Eight vendors submitted qualifications; all were deemed responsive and reviewed. Through the RFQ process, Fugro EarthData Inc. was selected as the preferred vendor.

Issues/Analysis

The current topographic data layer is dated and no longer accurate enough to meet the needs of the City or County. Human activities (development, road building, etc) over the twelve to seventeen years since the data was acquired have limited its usefulness. In order to assure accurate analysis and mapping for activities like storm water runoff and slope analysis, the current contour data will need to be replaced.

Alternatives

The City can choose not to approve the contract with Fugro EarthData Inc. Doing so will mean that staff will not have data sufficient to conduct accurate surface mapping and analysis in support of storm water, water/sewer management, environmental engineering, planning, and other activities. This alternative is not recommended.

Financial Impact

The proposed contract is funded in the Technology Solutions Department budget with 50% contribution from the County of Durham.

SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Fugro EarthData, Inc. of Frederick, Maryland and have determined that they are in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

SDBE REQUIREMENTS

No M/SDBE or W/SDBE goals were set.

Fugro EarthData, Inc. will subcontract to the following certified firm:

Firm	ID	City/State	Amount	% of Contract
Turner Land Surveying, PLLC	WSDBE	Raleigh, NC	\$ 3,300.00	2.07%

WORKFORCE STATISTICS

Workforce statistics for Fugro EarthData, Inc. are as follows:

Total Workforce	131	
Total Females	33	(25%)
Total Males	98	(75%)
Black Males	4	(3%)
White Males	89	(68%)
Other Males	5	(4%)
Black Females	0	(0%)
White Females	31	(24%)
Other Females	2	(1%)

Attachments: Fugro EarthData contract